

REMARKS

Claims 1-14 are pending in this application. By this Amendment, claims 1-14 are amended. No new matter is added.

I. The Claims Have Proper Form

The Office Action rejects claims 11-13 under 37 C.F.R. 1.75(c) for allegedly being of improper multiple dependent form. Applicants respectfully traverse the rejection.

Claims 11-13 were amended in the January 24, 2005 Preliminary Amendment so that claims 11-13 are not multiply dependent. Applicants have verified that the January 24, 2005 Preliminary Amendment is of record in this application (claims 11-13 appear in their amended form in the U.S. Patent Publication of this application, U.S. Patent Publication No. 2006/0054539). Applicants request withdrawal of the rejection.

II. The Claims Are Definite

The Office Action rejects claims 1-14 under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. Applicants respectfully traverse the rejection.

Regarding claims 1-13, the Office Action alleges "it is not possible to determine what the method steps [are]." The Office Action suggests that expressions such as "the amount of material on the screen is determined ..." could be amended to "determining the amount of material ..." By this amendment, claims 1-13 are amended to recite active voice.

Regarding claim 14, the Office Action alleges it is unclear what elements are claimed after the phrase "characterized in that ..." By this Amendment, claim 14 is amended to remove the cited phrase.

Regarding claims 3 and 6, the Office Action alleges that "the processing units" lack antecedent basis. Regarding claim 10, the Office Action alleges that "the hydraulic system" lacks antecedent basis. By this Amendment, these claims are amended to overcome the rejection.

Regarding claim 9, the Office Action alleges that the phrase "the load caused by the material is determined by the load of the engine caused by the material" is unclear and that "engine" lacks antecedent basis. By this Amendment, claim 9 is amended to overcome the rejection.

For the foregoing reasons, Applicants request withdrawal of the rejection.

III. The Claims Are Patentable Over The Applied References

The Office Action (1) rejects claims 1-9 and 14 under 35 U.S.C. §102(b) over U.S. Patent No. 5,248,042 to Kuhmonen; and (2) rejects claim 10 under 35 U.S.C. §103(a) over Kuhmonen in view of U.S. Patent No. 4,665,772 to Greene. Applicants respectfully traverse the rejections.

Regarding independent claims 1 and 14, Kuhmonen fails to disclose the steps or corresponding structure of (1) "providing upper and lower preset values (val_{max} , val_{min}) for the measurement value (val_m) of a variable dependent on the amount of material on the screen surface"; and (2) "changing the speed of the feeding means when the speed of change of the measurement value (val_m) of the variable exceeds a preset value ($(\Delta val_m / \Delta t)_{max}$)."

Kuhmonen discloses a screening method and screening apparatus 10 that comprises a pressure sensor which indicates the resistance to turning of the drum 20 and a control system which temporarily stops the feeding conveyor 18 if the sensor detects in the hydraulic system that there is excess pressure (col. 3, lines 58-64 and col. 5, lines 54-60). At col. 3, lines 58-64, Kuhmonen states "Similarly, feedback control mean[s] 46 temporarily stop[s] the feeding conveyor 18 when resistance to turning of the drum using the drum-powering hydraulic motor 42 indicates that the drum is temporarily overloaded. Upon resistance to turning dropping below a selected threshold level, the feeding conveyor 18 resumes operation."

At col. 5, lines 54-60, Kuhmonen states further that "The control means 46 operated to stop the feeding conveyor 18 temporarily, upon it being sensed in the hydraulic system 40 that

there is excess pressure on the respective drive motor 42 for rotating the drum 20, due to the fact that the drum 20 already has too much or too heavy a mass of material being screened within its inner cavity space 90."

As discussed above, Kuhmonen states "... the drum is overloaded ..." and "dropping below a selected threshold level ..." (col. 3, lines 58-64) when the feeding conveyor 18 is stopped or started, respectively. However, no separate upper or lower preset values for the measurement value, let alone a speed of change of the measurement value, is mentioned by Kuhmonen. Kuhmonen merely discloses a single "selected threshold level" (col. 3, line 63).

Further, in claim 3, Kuhmonen uses the phrase "temporarily diminishing delivery to said internal cavity of said drum". Based on the detailed description, the phrase "diminishing delivery" indicates stoppage of the conveyor (see, for example, the sections cited above). Kuhmonen indicates that this is crucial to the operation of Kuhmonen's screening apparatus because Kuhmonen states "The human operator who is driving the front end loader, upon seeing the conveyor 18 stop can temporarily stop or slow down his or her loading of raw material onto the grizzly" (col. 3, lines 64-68). Thus, Kuhmonen's apparatus functions in an on/off manner as far as the running of the conveyor is concerned.

In contrast, the claimed subject matter utilizes upper and lower preset values for both the measurement value as well as the speed of change of the measurement value, and, additionally, the conveyor always has some speed even when overloaded. This is supported, for example, by the original claims that recited "the feeding speed is changed to a different feeding speed" (i.e., not to zero) (see original claims 1 and 14). If an overloaded condition is detected, the speed of the conveyor is lowered but the conveyor is not stopped (see, for example, Figs. 4a and 4b showing the related changes of $S_{tmax} \rightarrow S_{tmin}$). Only in special conditions, where the overload condition is of a more severe nature, is the conveyor stopped. This condition is recited in dependent claim 13. The claimed subject matter has the benefit of

optimizing the processing speed, because the on/off function can be avoided when there is no need for it.

Greene, cited in the rejection of claim 10, does not disclose a screening machine, but instead, discloses a crawler-tracked bulldozer having a multi-speed transmission including a plurality of hydraulic clutches. In Greene, nothing is slowed down or stopped in response to an increase in temperature of the hydraulic fluid. Thus, Greene fails to cure the deficiencies of Kuhmonen.

For the foregoing reasons, Applicants request withdrawal of the rejections.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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